



SPEC Kit 346

Scholarly Output Assessment Activities

May 2015

Ruth Lewis

Olin Library, Washington University in St. Louis

Cathy C. Sarli and Amy M. Suiter

Becker Medical Library, Washington University in St. Louis



ASSOCIATION OF RESEARCH LIBRARIES®

Series Editor: Lee Anne George

SPEC Kits are published by the

Association of Research Libraries

21 Dupont Circle, NW, Suite 800

Washington, DC 20036-1118

P (202) 296-2296 F (202) 872-0884

<http://www.arl.org/publications-resources>

pubs@arl.org

ISSN 0160 3582

ISBN 1-59407-943-9 / 978-1-59407-943-6 print

ISBN 1-59407-944-7 / 978-1-59407-944-3 online

Copyright © 2015

This compilation is copyrighted by the Association of Research Libraries. ARL grants blanket permission to reproduce and distribute copies of this work for nonprofit, educational, or library purposes, provided that copies are distributed at or below cost and that ARL, the source, and copyright notice are included on each copy. This permission is in addition to rights of reproduction granted under Sections 107, 108, and other provisions of the US Copyright Act.



The paper used in this publication meets the requirements of ANSI/NISO Z39.48-1992 (R1997) Permanence of Paper for Publications and Documents in Libraries and Archives.

SURVEY RESULTS

Executive Summary	11
Survey Questions and Responses	17
Responding Institutions	63

REPRESENTATIVE DOCUMENTS

Training Material

University of Illinois at Chicago	
Demystifying Scholarly Publishing	68
University of Iowa	
Determining Your Scholarly Impact	69
How to Determine Your Scholarly Impact	72
Scholarly Impact: Traditional and Alternative Metrics	84
University of Kansas	
Taking Control of Your Research Visibility (presentation)	85
Taking Control of Your Research Visibility (worksheet/handouts)	90
University of North Carolina at Chapel Hill	
Tools for Tracking Your Research Impact: Author and Article Metrics	93
Pennsylvania State University	
Maximizing Your Scholarly Identity	95
University of Pittsburgh	
Bibliometrics Seminar	97
Using Bibliometric (Publication and Citation) Indicators to Demonstrate Impact	99
Using Bibliometric (Publication and Citation) Indicators to Demonstrate Impact (slides)	101
Syracuse University	
Introduction to Altmetrics for STEM Librarians	107
Yale University	
Upcoming Workshops	112

Job Descriptions

Florida State University	
Scholarly Communications Librarian	114
University of Massachusetts Amherst	
Scholarly Communication and Special Initiatives Librarian.....	117
Social Sciences Research Services Librarian	119
North Carolina State University	
Director, Copyright and Digital Scholarship.....	121
Southern Illinois University Carbondale	
Health Sciences Librarian.....	123
Lecturer (Science Librarian).....	125
Natural Sciences Librarian	127

Service Descriptions

University at Buffalo, SUNY	
Transforming Scholarly Communication & Publishing	130
Emory University	
WHSCS Publication Analysis Service	132
Northwestern University	
Metrics and Impact Core (MIC)	133
Washington University in St. Louis	
Publishing and Evaluation Support	135

Assessment Reports

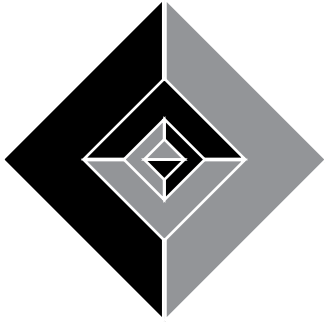
Duke University	
DukeSpace Statistics	138
Emory University	
Impact Factors and Citation Analysis: Introduction	139
Sample Individual Report	140
Sample Departmental Report.....	142
Sample Institutional Report.....	144
Florida State University	
Open Access Week 2013 Final Report	145
Massachusetts Institute of Technology	
MIT Faculty Open Access Policy turns six: readers around the world benefit.....	153
Washington University in St. Louis	
The Ocular Hypertension Treatment Study and Its Impact.....	155
Standard Language for Publication Reports	159

Research Guides

University at Albany, SUNY	
Scholarly Metrics.....	162
Arizona State University	
Citation Research.....	164
University of California, Irvine	
Research Impacts Using Citation Metrics	165
University of California, Los Angeles	
Impact Metrics and Scholarly Attribution	167
Duke University	
Enhance Your Research Impact: Intro	169
Iowa State University	
Promotion and Tenure Resource Guide: Home	170
University of Kansas	
Impact and Bibliometrics: Home	171
University of Kentucky	
Research Impact Metrics	173
University of Maryland	
Bibliometrics and Altmetrics: Measuring the Impact of Knowledge.....	174
McGill University	
Impact Measurements	175
New York University	
Scholarly Metrics.....	176
University of North Carolina at Chapel Hill	
Measure Your Research Impact: Introduction.....	178
University of Oklahoma	
Citation Metrics: Home.....	179
University of Pittsburgh	
Citation Searching and Bibliometric Measures: Home	180
Syracuse University	
Citation Metrics	182

SELECTED RESOURCES

Books and Journal Articles.....	185
Resources for Current Awareness	187



SURVEY RESULTS

EXECUTIVE SUMMARY

Introduction

Traditional measures to quantify scholarly outputs and impact based on “counts” (number of publications, number of citations, journal impact factor scores, etc.) are not sufficiently robust for new forms of digital scholarship processes, nor are they meaningful for specific audiences such as the general public. Those measures are now being supplemented with other metrics, for example usage or downloads on publisher, repository, or other journal platforms; the h-index; or non-citation metrics that represent social or academic engagement of scholarly processes by scholarly and non-scholarly audiences. The proliferation of these new metrics is mirrored by the emergence of new resources that provide tools for tracking and reporting scholarly outputs and impact. Understanding the full array of newer metrics and tools and how they play a role in assessment of scholarly output and impact will become increasingly important for research libraries as the metrics become more widely available and employed by funding agencies, publishers, academic departments, and institutions.

In light of the movement towards reporting scholarly outputs and impact to demonstrate tangible and meaningful outcomes, the purpose of this survey was to obtain a snapshot of current activities undertaken by ARL member libraries in the assessment of scholarly output and impact, provide examples for other research libraries to emulate, and identify trends that may represent promising indicators for transformative service models for ARL libraries. The survey was distributed to the 125 ARL member libraries in early January 2015. Seventy-nine libraries (63%) responded by the February 17, 2015 deadline.

Services

Seventy-six of the respondents (96%) reported that their library provides services that relate to scholarly output assessment, such as reports, resource guides, consultation, and education. Two respondents reported that they are considering developing services, and one responded that another unit in the institution provides these services.

Consultation or guidance on bibliometrics is the most common library service (70 respondents, or 92%), followed closely by consultation on article-level metrics, database usage for tracking of scholarly outputs (79% each), and author disambiguation (75%). The majority of respondents also provide or plan to provide publication/citation reports (54 respondents) and institutional repository reports for authors (61 respondents). Some libraries are offering graphs or charts for illustrative purposes (20 respondents).

Other examples of services were impressive. One library reported that, “Liaison librarians do occasional large-scale bibliometrics projects, tracking faculty publications for a center or department.” Another reported offering bibliometrics and best practices “based upon specific disciplines and fields.” Other services include consultation on faculty credentialing, assistance with scholarly network profiles and identities, tips to enhance collaboration among scholars, text analysis, and guidance on various products such as ORCID, Mendeley, Altmetric.com, Scopus, and Web of Science. Most of the libraries offer scholarly output assessment services to all library users. Twenty-two respondents (29%) limit services to specific user groups, typically affiliated faculty, students, researchers, and staff.

There appears to be no single universal service model for scholarly output assessment services. The majority of respondents reported that services are provided informally on an ad hoc basis rather than in a coordinated fashion within the organizational structure of the library. As one commented, "It is a 'toe in the water,' not a fully developed service." The service model for scholarly output assessment services appears to be in the initial phases of development and perhaps represents a promising indicator of an emergent model, "a rapidly growing area for libraries," as one respondent noted. Others commented that, "Assessment will be a priority as it develops in areas of our new organizational structure" and "We recognize the importance of services in this area." Some respondents also reported plans to "develop a more well-defined set of services in this area" and to hire new staff devoted to scholarly output assessment services.

Training

The majority of responding libraries (49 or 64%) currently provide training related to scholarly output assessment. Three reported that training is in development, and 18 others are considering it. Training includes classes, workshops, informal one-on-one training sessions, drop-in sessions, brown-bag sessions, special events, and "one-on-one conversations with faculty." Some training is offered on a regular basis; others are ad hoc as requested by users. Only seven respondents (9%) have no plans to offer this type of training. One respondent noted that "a more integrated approach is planned for development in FY16 planning cycle."

A wide variety of course titles was reported: Article Level Metrics; Building Your Academic Profile; Citation Analysis; Citation Management; Collaboration; Communicating Research; Digital Humanities; Data Management; Determining Your Scholarly Impact; Scholarly Impact: Traditional and Alternative Metrics; Basics of Citation Metrics; Impact Measurements; MyResearch graduate series; SCOPUS: A Tool for Authors; Enhancing the Visibility and Impact of Your Research; Who is Citing Your Work?; Journal Impact Factors and Citation Analysis; Measuring Your Scholarly Impact; Library Tools for

the Publication Cycle; to name a few. (See Q11 in the Survey Questions & Responses section for others.)

Content descriptions for training included "highlighting one or a mix of the following: overview of bibliometrics/altmetrics, h-index and Eigenfactor, Scopus and Web of Science comparison, Google Scholar, and InCites" and the "significance of h-index for scholarly output assessment." One description of a workshop included learning outcomes: "This hands-on and practical workshop will focus on the three areas of article, author, and journal assessments. Participants will become familiar with different multifaceted citation analysis using a variety of metrics and their implications."

Training is provided to faculty, students, researchers, and administrative staff. Some specific target audiences reported by respondents include media relations staff, graduate students, research coordinators, and early-stage faculty. Some training efforts are also tailored for specific areas of study such as science, health science, humanities, and education.

Software and Resources

Survey respondents recommend a variety of scholarly output assessment software and related resources (subscription and free) to library users. The most frequently recommended resources are bibliographic citation databases, such as Web of Science, Google Scholar, and Scopus, and resources that provide journal metrics, such as Journal Citation Reports. Some respondents reported recommending or using resources that capture non-citation data such as ImpactStory (36 respondents), Altmetric.com (30 respondents), and Plum Analytics (7 respondents plus another 22 that are considering it). A few respondents recommend visualization software, such as NodeXL, Tableau, Sci2, Gephi, and Wordle. Forty-six respondents (61%) reported that they do not do cost sharing for subscription resources. Twenty-nine (39%) reported sharing costs with campus administration units such as the Office of the Provost, Office of Research, or the Office of Institutional Analysis.

Staffing

The survey asked respondents to list job titles for librarians involved with scholarly output assessment

services. Sixty-two respondents listed 152 job titles. The majority of respondents indicated that scholarly output assessment services are performed by subject or liaison libraries. Seventy-two titles were for liaison, subject, or departmental librarians. One respondent commented that existing “liaison librarians provide many of these services to their constituents as part of their professional assignment.” Fifty-one titles were related to scholarly communications, repository, or digital scholarship/research. Other titles were administrative, generic, or related to data, collection, or learning (see Q17).

Sixteen respondents reported that they are hiring new staff specifically for scholarly output assessment services. One library reported, “We currently are accepting applications for a new position of Scholarly Assessment Librarian.” Another is “currently building an Office of Research to support the research activities of faculty and students. This will include increased attention on scholarly analytics and collaboration with other units on campus.” Twenty libraries reported that they are reallocating staff. One commented, “It is not so much the reallocation or addition of staff as the realignment of existing subject specialist roles to support bibliometric analysis and publication analytics.”

The survey also asked what skill sets staff need to provide scholarly output assessment services (see Q13). Many respondents reported that librarians needed to learn about new resources or methodologies but few mentioned formal training. Some skills noted were: data analysis and management; executing data visualization; understanding of different metrics such as the h-index, altmetrics, and the Eigenfactor, and their limits and potential applications; being aware of discipline specific scholarly output trends; and creating narratives based on analyses, to name a few. One respondent noted two specific skill sets: “having to spend time learning the new tools that are entering the market and staying vigilant on top of new trends.” Proficiency with the following resources was noted: Excel, Scopus, Web of Science, Google Analytics, Altmetric.com, ORCID, ImpactStory; Plum Analytics, InCites, Google Scholar, and social network analysis tools.

As to how library staff acquire skill sets, some respondents reported that library staff are “self-directed” and “self-taught,” and that “this is what liaison librarians do to support our learning, teaching, and research mission for the library and campus...nothing new.” Attending conferences (72 responses, or 96%) and webinars or continuing education classes (68, or 91%) were reported as common ways for staff to keep abreast of the latest trends related to scholarly output assessment services. Other ways include Twitter and other social media outlets, vendors, and involvement with different research communities on campus. Some libraries also reported providing internal seminars for librarians for training on scholarly output assessment services. (See Resources for Current Awareness in the Selected Resources section.)

Partnerships

Forty libraries (53%) have partnerships with other campus units for assessment activities and 20 others (27%) are in the process of planning partnerships. Only two respondents reported that they tried to initiate a partnership without success. Examples of partnerships with campus units include the Office of Institutional Analysis, Graduate School, Office of Research, Office of the Provost, and Office of Sponsored Research, among others. Partnership efforts include implementing ORCID at a campus-wide level, providing bibliometrics/research impact workshops, facilitating faculty profile systems such as VIVO, serving on tracking and evaluation teams for Clinical and Translational Science Award (CTSA) programs, reviewing scholarly output assessment software options, providing patent citation training sessions, implementation of Symplectic Elements and the connection to the institutional repository, and working on a bibliometric project to quantify monographic output of faculty, to name a few.

Several respondents reported that partnerships are important to the library and represent a growth area for library services: “It’s important to be able to show impact of our university’s research for a variety of reasons, and library staff are well placed to understand how best to do this.” Some respondents also noted issues with redundancy among campus units: “This

is complicated by the fact that other institutional support and assessment offices like Institutional Analysis and Sponsored Programs see this as their function and tend to act independently of the library.”

Marketing and Publicity

Seventy-three respondents indicated one or more methods the library uses to promote scholarly output assessment services. Of these, 54 respondents (74%) use word of mouth to promote their resources and services. The majority of respondents also use LibGuides and library websites (66% and 60% respectively), while flyers and brochures are the least used methods of promotion (21% and 16% respectively). Other methods specifically identified by respondents include emails to faculty, library-held wine and cheese events, brown bag lunches at departments, communications on electronic display boards, announcements from university public affairs, and presentations at faculty departmental meetings.

Advice

Forty-three respondents provided advice to their peers about scholarly output assessment services. The importance of faculty and administration partners to success was a common theme. As one respondent noted, providing the services themselves can help “build faculty-library liaison relationships.” The need to understand and respond to different departmental needs and disciplinary differences was another recognized theme for building successful partnerships. The number of tools and continued “flux” of scholarly output assessment services was highlighted as a challenge for librarians. Hiring or encouraging librarians to develop expertise in this area to serve as technical leads or coordinators for efforts was recommended by several respondents. One recommendation was to “have a dedicated position who keeps abreast of emerging products and resources and then provides staff development for other faculty and staff.” Another recommendation was to build programs around actual researcher scenarios such as “funding applications, dossiers for renewal and tenure, annual reports, and promotion.”

Understanding and communicating the strengths and weaknesses of available tools and measures was

also recognized as an important component of scholarly output assessment services provided by librarians. One library commented that tools for scholarly output assessment services have limitations and to “be mindful and explicit about this as you introduce, discuss, and utilize them.” Another respondent advised honesty about the limitations of bibliographic tools and “to always make caveats explicit.”

Trends

Fifty-nine respondents identified future trends that have implications for scholarly output assessment services in libraries. Several respondents identified alternative metrics, author identifier profile systems, and the assessment of scholarly output beyond traditional publications, including data, as trends. The proper and evolving use of appropriate metrics across disciplines was also reported as an important trend, as was recognition of scholarly output in other formats such as data, digital humanities, or other digital objects. Concerns include the accuracy of data sources, data standardization, data aggregation, data interoperability, and author name ambiguity. Respondents identified adoption of unique author identifier profile systems, such as ORCID, as being a promising development. Other challenges noted by respondents include proliferation and cost of resources, political and discipline-specific issues related to promotion and tenure, staff development needs, and keeping abreast of trends including federal research requirements.

Conclusions

Based on the survey responses, the majority of the responding ARL member libraries engage in a variety of activities related to scholarly output assessment. These activities reflect the diversity of ways that scholars are creating and disseminating scholarly outputs to communicate scholarship, as well as the methods and tools for measuring scholarly impact. The activities range from formal programs with staff dedicated to scholarly output assessment services to providing just-in-time information on resources, tools, or metrics.

Many libraries reported partnerships with various campus units outside of the library. These partnerships demonstrate alliances with the campus community to leverage opportunities for expertise and

resource sharing to benefit all parties involved in the scholarly communication process.

Research libraries offer substantial expertise in navigating the ever-expanding array of tools that exist to illustrate a narrative based on scholarly productivity and impact. They help authors manage their scholarly identities, provide options for creating and disseminating scholarly outputs, offer strategies to enhance discoverability of scholarly outputs, help authors efficiently track scholarly outputs and impact, provide resources and tools to help authors assess

their scholarly impact, create publication reports and social network maps for reporting purposes, and offer guidance and training on new trends and tools for reporting of impact.

The authors hope that the survey inspires ARL libraries to consider ways they can incorporate scholarly output assessment services into their service models. As one respondent noted, “This survey has prompted several conversations and ideas for further development in this area.”

